




Chelmsford Amateur Radio Society

Newsletter

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Next meeting: 7th September - 7.30pm, Oaklands Museum

Millimetric Microwaves - Chris Whitmarsh, G0FDZ

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Club Nets - Tuesdays 20:00h Net Controller: TBD

#2 - GB3DA 13th September
 #3 - GB3ER 20th September
 #4 - 80m 27th September
 3.756MHz
 #5 - 160m n/a
 1.947MHz

Essex Ham Net Mondays 20:00h GB3DA



A privileged look inside the old water works at Sandford Mill during the BIG weekend. Tim Wander led us on a guided tour and entertained us thoroughly. Health & safety didn't get a look-in!

Contact details for the newsletter: editor@g0mwt.org.uk

Editorial

Hello again, and welcome to the latest edition of this newsletter. September - season of mists and mellow fruitfulness, they say. I wonder what the autumn will bring. Following on from the congratulations last month to Brian Thwaites, G3CVI for 70 years unbroken membership of the RSGB, John, G8DET noted that Brian's friend John Peters, **G3VMJ** has completed 50 years of continuous service. That CARS members are contributing in this way is good for the RSGB's archives and history, but I have started to wonder: if an analysis were to be performed, which club, region or area would have the largest number of cumulative years amongst their present membership. I wonder also, if you did the analysis on an annual basis, what the data would look like - historically or in the future... **Ed**.

Advance Training & Exam Session

Our 18th Advance training course starts on Thursday, 27th October at Danbury Village Hall near Chelmsford. The course runs for six consecutive Thursday evenings between 7 and 9pm. The exam date is Monday 5th December. The timing is aligned with the Bath distance learning course. To register, please contact Chris, G0IPU training2016@g0mwt.org.uk. If you need any other exam/re-take we can potentially fit you in on that exam session. 73, de Murray, G6JYB

This month's talk: Millimetric Microwaves by Chris Whitmarsh, G0FDZ

Many of you will have glanced at the very highest frequencies shown your licence schedule and thought to yourself "who on earth uses these frequencies?" Well, a small but dedicated group of microwave enthusiasts in the UK do and they regularly make QSOs; sometimes at surprisingly long distances and with very low power. Chris, G0FDZ has been operational on these frequencies for many years and will tell us what goes on, and the techniques used for equipment to use on the bands, where the wavelength is measured not in centimetres but in millimetres – the smallest being just 1.2mm. Chris has operational equipment for all of the millimetre-wave bands and will be bringing it along to show us with his presentation.



Dates for your diary

Please note: the dates may be subject to change...

Tue. 6th September	Meeting - "Millimetric Microwaves" - Chris Whitmarsh, G0FDZ
Mon. 19th September	Skills Night - Danbury Village Hall
30th Sept-1st Oct.	National Hamfest, Newark; details: www.nationalhamfest.org.uk
Tue. 4th October	Meeting - CARS Annual General Meeting
Thu. 13th October	Essex Repeater Group AGM, Danbury Village Hall
Mon. 17th October	Skills Night - Danbury Village Hall
Sun. October 23rd	Science Discovery Day at Sandford Mill
Thu. 27th October	Start of Advanced course, Danbury Village Hall
Tue. 1st November	Meeting - 25 minute chats (not 25 @ 1min each...)
Mon. 21st November	Skills Night - Danbury Village Hall
Tue. 6th December	Meeting - Christmas Social Evening
Mon. 19th December	No Skills Night! - everyone will be taking it easy...
Tue. 4th April	RF Kits Design & Manufacture - David Powis, G4HUP (hupRF.com)
Tue. 2nd May	Tricks with coax - John Regnault, G4WSX

August constructor's competition

For a number of years I have played host to the constructor's competition and I am always nervous about the number of construction projects that will be entered. Therefore I was amazed and delighted with the number and range of construction projects that were produced for the evening by the Society's membership.

In no particular order, the entries on the night were as follows:

Entry	Constructor
A wind speed & direction weather station:	Alan, M0IWZ
An S-parameter test set:	Steve, G4GHO
An AM receiver based upon ZN414 derivatives:	Steve, G4GHO
A hand-held DF receiver:	Tony, G4YTG
A stability modification to a signal generator:	John, G4IMS
SWR meter with digital readout:	Melvyn, 2E0DNS
Wobbulator test set, for IF transformer tuning:	Dave, M0HBV
75 ohm dummy load with fan cooling:	Frank, M1GFE
A simple VHF aerial for STEM project to receive ISS:	Andy, G7TKK

After completion of the presentations the audience was able to inspect all projects and then vote for those they considered worthy of a prize.

The results were:

- 1st prize Alan, M0IWZ
- 2nd prize Steve, G4GHO (S-parameter test set)
- 3rd prize Dave, M0HBV
- 1st time entrant's prize Frank, M1GFE

Our president Tony, G4YTG presented the monetary prizes; the certificates and the M1FDE shield will be presented at the AGM. My thanks to all entrants for making the evening a success; I must make an entry next year.

Carl, G3PEM

Editor's note: I had the opportunity to discuss Alan's weather station on several occasions during Committee and training meetings and it was nice to see it all unfold during and after its development. The CD meter fronts and pipe cleaner indicator needles looked good. Well done, Alan.

The highlight of the event for me, however, was Frank's 75 Ohm dummy load. A lot of thought had been put into it and it was nicely crafted. He had modified the impedance of a carbon resistor which was too high in value, by placing a string of higher value resistors inside the hollow centre of the load. He designed and built a case to have the correct transmission line impedance and incorporated a plenum at the end to allow air to be blown along the assembly in order to cool it.

When we checked its performance on my test set, the impedance was pretty much cock-on and flat as a pancake to well above the HF bands. Relatively simple, but nicely executed. Well done, again, Frank.





Wot? No prize for this bit of smart bit of cardboard and foil? I woz robbed! Yes, I think you were, Andy!



CARS at Sandford Mill BIG weekend

We had a mixed time at Sandford Mill BIG weekend recently, when the antenna (again) proved difficult to match on the Saturday. The CW operators were finding it difficult and the only band proving reliable for the Tx was 40m. After the event I took some measurements of the antenna (more of which in the next issue) and a permanent solution to the problems is now being sought.

Peter, G3SUY had his 1154/1155 set along to show the public and also had some mixed success. It seems that he wasn't able to operate the rig and couldn't find what was causing the trouble. Too late, after delving into the set, he realised that someone (a member of the public) had been twiddling the controls and Peter hadn't thought to look for that as a cause.

Anyway, it proved to be academic as he then found a blown PA valve so That stopped play for the day. Murray had some SDR kit running for general display and reported that the transmitter, or RF from the antenna feeder arrangement was able to penetrate his laptop's EMC screening and cause him difficulties in using it.

Peter used his homebrew ATU and had replaced the coax connection to the doublet's open feeder with a length of 300 ohm ribbon and it proved difficult for the CW boys to match that as well. All in all, a lot of lessons learned.

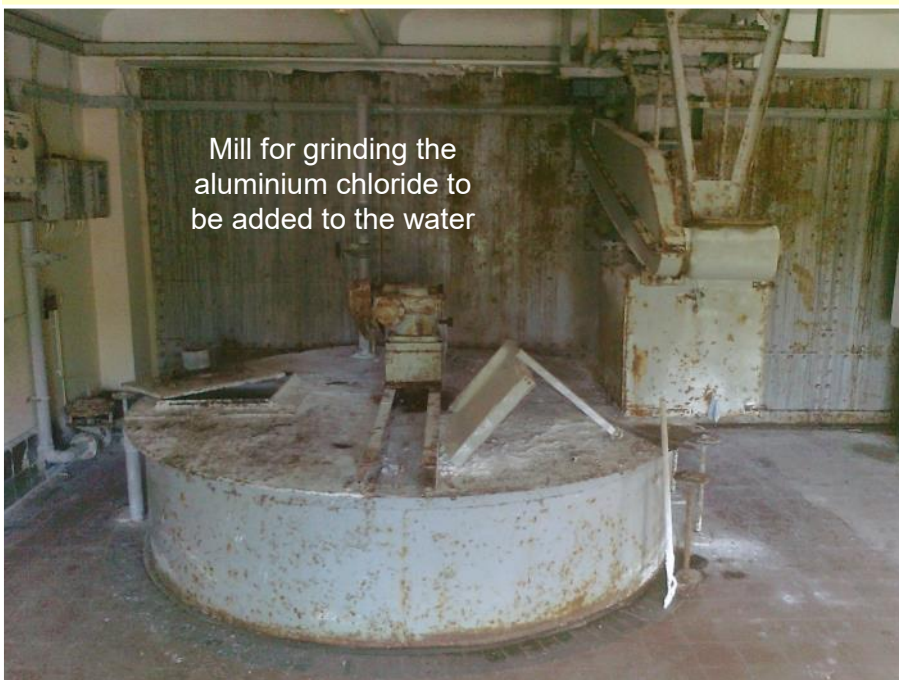


Tony, G4YTG checks the antenna match with his MFJ analyser while Andy, G0IBN looks on



Ted Sinclair, who replicated the Titanic's radio room was there with his wife to add more artefacts to the display. I think he was pleased with his new home for the exhibition and it was nice to see it located near the entrance.

All this paled into insignificance for me, however, when we got the chance to look round the old water treatment works that was shut in 1982. As Tim Wander says, they just locked the door and walked away. The building is in a sorry state with stalactites and stalagmites of the leached chemicals that was used in the cement. The roof leaks, paint is peeling off the walls, there is dust and rot everywhere, but there are still paper charts in the old pen recording instruments. Unfortunately, when I looked round, I had not taken my main camera so any pictures you see here are from my little phone's 2Mpx device and of really poor quality. - **Ed**.



Mill for grinding the aluminium chloride to be added to the water

Can anyone identify this machine? Although it looks a bit like a lawnmower, it appears to have a sort of cable winch mechanism. It also had this notice sitting on it:



Decay, and more decay...



Another view - By Chris, G0IPU

On Saturday 6th and Sunday 7th of August CARS were invited to Sandford Mill for their Big Weekend event.

Saturday 6th CW in the Marconi Hut was organised by Andy, G0IBN and assisted by the dedicated CW team from the Club and Essex CW. Pictured is Steve, G4ZUL. There were technical issues with the antenna and this did not perform as well as in the past; this led to many a discussion on the way forward and an antenna party is planned for sometime soon.



Peter, G3SUY brought his Marconi T1154/R1155 transmitter/receiver set down for the day, demonstrating the unit on 80m using the outside antenna that was still playing up a bit. There was a minor issue on the kit, but Peter quickly sorted it out



in a modern light. This was located opposite the Marconi T1154/R1155 in the Marconi Hut.



Colin, G0TRM had his CW Display on the mezzanine floor where there was much interest as usual. Many thanks to the Colin for the display.

Sunday 7th Chris, G0IPU brought his Scouting tent for VHF and the radio control cars/Snap-circuits). As ever, the radio controlled cars were a big hit with the younger generations. A new item was the introduction of "Hat Cam" a 2.4GHZ linked camera on a hard hat relaying live TV back to the outside shack



Murray G6JYB ran the SDR demo, showing radio



This was sharing the Antenna during Tx breaks and this seemed to confirm the antenna issue.

BBC Essex

BBC Essex were in for the day, putting on a radio play from the mezzanine floor near where Colin was with the CW keys on display. Although I was working outside and didn't hear it myself, it followed the same mini-play format that was used at the Hall Street Exhibition

Curator - Tim Wander

Tim was giving guided tours for the visitors. They



much enjoyed Tim's brand of humour and obvious enthusiasm.

Antenna problems aside, two interesting days that helped bring radio to the public's attention once again and helped fly CARS' flag.

Below: Clive M0GHH, Andy, G7TKK, Chris, G0IPU and Alan, M0IWZ chill out whilst waiting for 'customers'.





Ted Sinclair's replica radio room in its new home, and look what's happened to Hall Street! Thanks Colin, G0TRM for those pictures. - **Ed**



Morse classes have started again

Yes, Morse classes have started again at Danbury Village Hall. Why?, you ask; what is the point?

Because Morse gets through when SSB fails! Read about why, in the current RadCom...

Do you want that DX award? Then Morse code will help you to get that distant DX contact. A CW signal can have a 10-20 dB advantage over an SSB signal. Yes, I am biased, but these are well-known facts.

Everyone can talk, but CW is an art!

These classes are designed for the complete beginner or, if you have a little experience, we can help to build up your speed and confidence on the key.

Instruction is also given on the use of the twin paddle key.

Within 8 weeks, if you do your homework, we can get you on the key.

Your instructors will be Andy, G0IBN, Colin, M1OCN and Oliver, M0WAG.

Just bring yourself, a pen and an A5 size note book. It's informal, and don't worry about missing a week.

It is a fun night and you will be made very welcome. We even supply tea/coffee and bikkies!

CARS Morse classes success

Three class members have recently passed the RSGB 5 and 10 wpm test. Nigel, M6NBZ and Huw, 2E0HTL both passed the 5 wpm test and Steve, G7NBQ, with a lot of hard work, passed the 10 wpm. Congratulations to all! Huw is a member of the Thames Amateur Radio Club and his enthusiasm has been transmitted to his club, which now runs Morse classes.

Essex CW ARC committee were made aware of his enthusiasm and justly made him their amateur of the year, presenting him with a certificate and the G4OAD Memorial Key which he can keep for a year.

Thinking of taking up CW? Come and join us a Thursday evening and share in the successes.

To reiterate: Morse classes started again at Danbury Village Hall, 7pm, on Thursday, 1st September.

Contact Andy, G0IBN on 01621 868347 or email g0ibn@g0mwt.org.uk



Your Radio Society needs your support.

As you may be aware, next month sees the AGM and at present your committee is a little on the light side. More members are required.

I intend to stand down as Chairman. This is mainly due to time constraints; there are just not enough hours in a day to complete some tasks I have taken on (some might say I should learn the word "NO").

So, if you do want to get involved in the running of the Society please do not hesitate in contacting me on this email address: chairman@g0mwt.org.uk

Additionally, but not mutually exclusively, help on the event planning, organisation, operating and the like will be most gratefully received.

CARS really needs to hear from you. - **Chris, G0IPU**

My new radio

Unfortunately, my Pure Chronos II mono FM/DAB Alarm Clock Radio was playing up for the second time. The first time a Pure engineer suggested the plug-in PSU had failed – it needed 9V, 1A+ so I purchased a new one 3 years ago. This time it seems to be the FM side which is failing. Murray, G6JYB reminds us that at some time in the future Ofcom and the BBC propose transferring the FM band to the pirates and that DAB will be needed to listen to “our” type of music.

I am well aware that the sort of stereo audio I used to demonstrate 40 years ago, has now gone. With that, the Flying Scotsman was first 12 feet to the right, thundering towards you; it came into the right ear, passed through the brain and left by the left ear with a Doppler frequency change, to gently disappear 12 feet away to the left! Now that was Stereo with 15 inch speakers, 12 feet apart and the electric meter whizzing around driving two lovely valve amplifiers. Most DAB sets now seem to have a single 2 inch speaker - possibly why the programme makers think compressed mono is all that is required.

Using the Internet I happened to stumble on what seemed a set I would have specified – stereo with two decent 4 inch speakers in a wooden box and with Murray’s DAB for future proofing as well. According to its blurb it also provided a line input as well as Firewire and a nice digital display.

It turned up and appears to be a computer chip which receives radio! (The Verona 2 FS2245).

Switching it on proved a good buy as an alarm clock radio where just one or two stations are selected to release you gently from your dreams but totally, totally useless as a general radio. It takes 30 presses of the -> button to tune from BBC Radio 2 to BBC Essex on 103.5MHz. With time I may be able to work out how to load the pre-sets but I don’t really need them for my use at present.

The quality is superb and fills the room well using just 4 Watts of mains – uses ½ Watt on Standby. It has a 2,000mAh internal battery but I have not tested this out yet. It is 270mm wide by 130mm deep by 140mm high.

It squares up well to similar specified radios cost £500 and more.

It is a Azatom Multiplex D1 Digital Radio – British designed and specified, but made in China. The accompanying picture shows it in comparison the UV-5R



John, G8DET

John - the manufacturer’s website says the radio has autosearch, so tuning shouldn’t be a problem and I’m sure the pre-sets can’t be a problem either, although several reviews all mention the awful instruction manual. If this is a product designed and controlled by a British company, why, oh why, can’t they get the technical authorship right? They also say that a 2Ah battery will run the radio for 10 hours. Not long, when compared to battery FM sets for ages past.

The FM/DAB merit debate just won’t go away. Just recently, there was a discussion on the CARS UHF net about the problem of the audio processing lag when compared to the “instantaneous” nature of FM. If two radios are tuned to the same station, one on FM and one on DAB, then it can be quite distressing if both are in earshot. This is a particular problem in my house. Even two DAB radios do not necessarily have the same delay. My domestic HiFi receiver even has an unpleasant lag on FM as, almost certainly, the signal is digitally processed in some way before being routed to the audio amplifier and speakers.

I don’t know if there will ever be a solution to all this. Perhaps when we are all wired to the internet via WiFi, then DAB can be switched off as well - Ed.

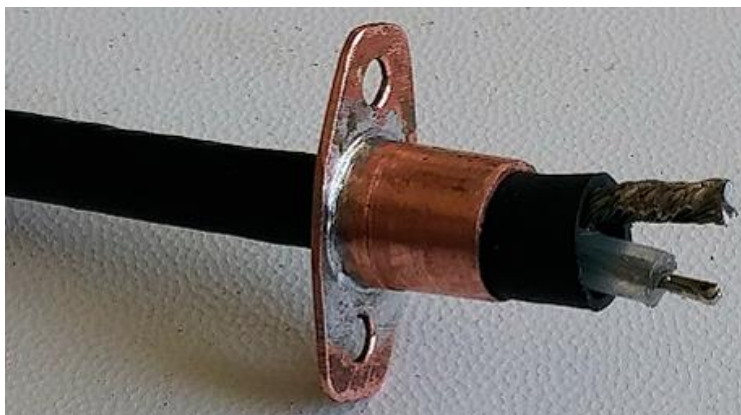
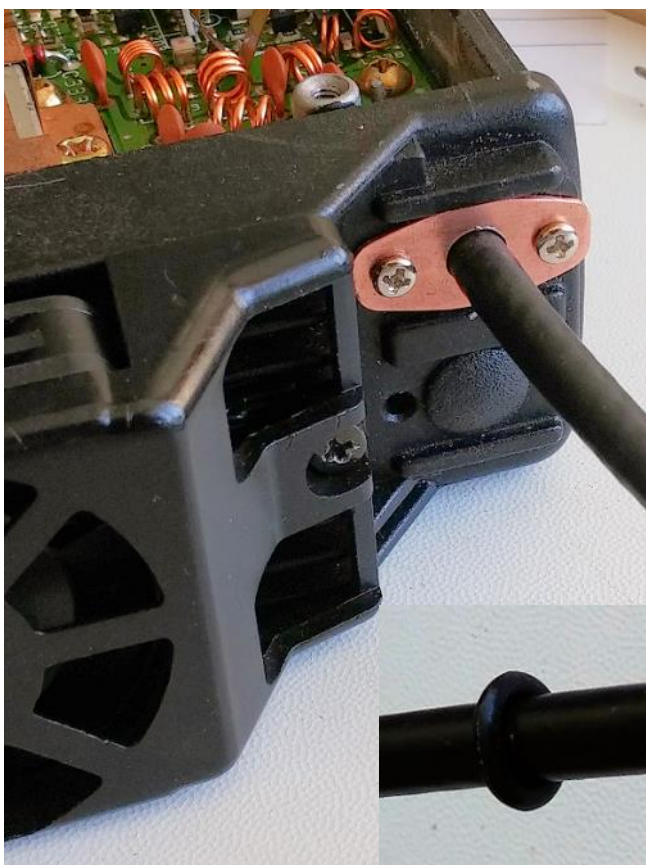
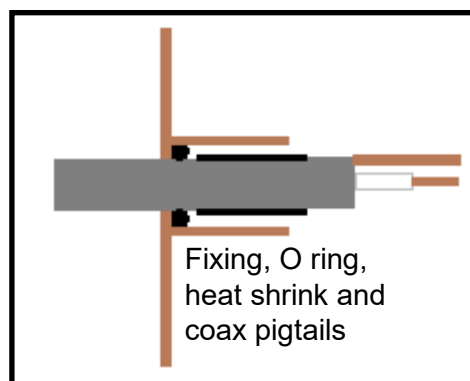
TM-733 homebrew coax mod

My brother gave me this radio, which was nice, but the antenna lead was projecting from the rear of the rig and was very loose, with a bit of heat shrink round the end near the pcb it was soldered to and the remains of some silicone sealant that had been used in an attempt to anchor the lead. Neither my brother nor I knew what should really attach it (I guess it was second hand), but there were two holes in the rear of the rig that cables could protrude from and screw fixing holes that suggested a cable clamp of sorts was once extant.

I made up a fixing from a gash piece of 8mm copper gas pipe. I cut some down the side, flattened & drilled it to form a flange, soldered the pipe, turned a slight taper on the pipe to fit the hole in the back of the rig and inserted the coax + heat shrink sleeve. The flange was a close fit around the coax and the heat shrink was intended to act as a back stop but that and the coax was still a bit loose in the pipe, so more remedial action was required. I had a small O ring that just fitted inside the gas tubing and also just pushed over the coax. By placing the O ring at the right distance from the heat shrink, I was able to push the sleeve fitting over the O ring, compress it, and roll it down to the heat shrink position. This very effectively stopped the cable rotating in the sleeve and would also stop it pulling out of the flange.

Now all I had to do was insert and fix the sleeve, then solder the tails onto the board.

Job done. - **Ed.**



XYL offerings

Our anniversary and my birthday almost coincide in August and Mara made a beadwork anniversary card with the sentiment expressed in Morse code; she also embroidered me a 'graffiti' wall hanging for the shack.: - **Ed.**



What on earth?

I get marketing emails from Banggood (cheap Chinese goods) and I couldn't believe this when I saw it:

<http://www.banggood.com/Anti-Radiation-WIFI-Modem-Router-Antennas-p-1078327.html>

"Utilizing the principle of electromagnetic energy is converted into thermal energy, electromagnetic waves absorbed and converted into heat energy quickly consumed, the absorption of radiation from the source and eliminate interference, the electromagnetic waves and will not cause secondary pollution." (sic)

■ PRODUCT ADVANTAGE

ABSORPTION AND ELIMINATION OF WIFI RADIATION FROM THE SOURCE

This does not affect the wifi signal and network speed.



ELECTROMAGNETIC WAVE ABSORPTION RATE OF 90%

Enjoy life, away from the radiation



Using the principle of electromagnetic energy conversion

ABSORPTION ELECTROMAGNETIC RADIATION

USE OF SILICONE RUBBER AS A CARRIER WITHOUT ANY SIDE EFFECTS

External diameter: 16mm Internal diameter: 14mm



Outer - Silicone Rubber Interior - PC support bar

Middle - Absorbing materials

"Anti-Radiation WIFI Modem Antennas can absorb electromagnetic radiation, then convert into heat energy consumes it, won't cause second pollution.

It reduce radiation by up to 94.4%, successfully absorbing radiation form the wifi modem when it works and that signal is not negatively affectd" (sic)

Yes, of course; that's what we want - a system of reducing the radiation from antennas. Now, why on earth didn't I think of this before? Silly of me, of course! - **Ed**.

They have screenshots of tests carried out using a Gigahertz Solutions model HF59B test analyser:

*"Tested by our meter, wifi router works(! - **Ed**), the radiation reach $9.94\text{mw}/\text{m}^2$ "*

"Catching the antennas by cases, reduce radiation by up to $0.7\text{mw}/\text{m}^2$ " (sic)

(up to or down to? - **Ed**)



And router performance is not affected?
Way to go! - **Ed**.



Charity begins at V : Clive, M0GHH, collector extraordinaire

I met Clive, M0GHH almost two years ago when James, 2E0EUA told me about a loop antenna Clive had for sale. I went to see him about that and, to cut a long story short, finished up doing some work with him on his house and a friendship developed. Last year, Clive said that he was going to collect for charity at the 2015 V Festival and would I mind helping him? My first reaction was "not on your Nelly", as I'm not a fan of loud music and I hate imposing upon the general public, but eventually I relented and went along.

We got started and later on, Clive asked if I'd like an ice cream. Yes, that seemed a good idea, so he wormed his way to the front of the queue at the ice cream van and very nearly demanded that the vendor give the charity collectors their due. Perhaps it was the shock, or the vendor's heart warmed, as two ice creams duly appeared. Next target, after another stint accosting the general public with his collecting bucket, was a stall selling Pringles. Yep. You guessed. Two large tins magically appeared before we got back on the trail. Clive's ploy was just walk up to the prettiest girls and charm them into emptying their purses whilst I walked about holding my bucket and looking embarrassed. I wandered lonely as a cloud as Clive disappeared off into the VIP area as, he having blagged his way in, Security would only allow one of us in there. I drifted off and stationed myself by the queue for one of the bars. It's perhaps a little disingenuous to do so, but inebriated people seem to find that charity collectors are "their best mate" and appear generous. People in a queue are pretty stationary and have a lot of time to think about putting money in your bucket...



During setup, all is quiet



Clive, his daughters Fiona & Sharon and his grandchildren Verity & Isaac with a McMillan rep.

Clive found me later in the day as he came staggering across the field with his collecting bucket weighing at least double that of mine (although mine was later found to contain a good few notes - it seems that the beer helped considerably). We totalled £525 between us.

We started back to the car park with our weighty buckets; he blagged us a couple more ice creams, stopped for free tea then commanded a ride back to the car park on one of the hospitality buggies (another attractive young lady was driving) and finally my ordeal was ended.

I feel somewhat guilty about writing in this vein, as Clive had collected there for many years for several charities and was there again this year, this time with his family, collecting for McMillan cancer charity. Unfortunately, the V organisers imposed the restriction that he couldn't carry his buckets around. Never mind. He and his family still managed to raise £240 for McMillan on this occasion.

I wasn't there of course, but Clive tells me that rival charities were situated together and that they were near a queue for the loos. Some charities were "charging" people to go to the loo but Clive did manage to wander about for a bit with his bucket before the heavy hand of the organisers put a stop to his efforts

Clive says this is his last, however. I don't blame him; it is a big responsibility and he isn't getting any younger. Whatever, it was a mixed blessing that last year I witnessed his own brand of bravery, humour, tenacity and downright bare-faced cheek being put to work for people less fortunate than himself. He is generous to a fault and (almost) tireless in his charity work and I am pleased to have him as a friend. - **Ed.**

ZEPFEST—24th & 25th September

An event is taking place to commemorate the 100th anniversary of the forced landing of Zeppelin L33 near New Hall Cottages in Little Wigborough, Essex. The event will be held 14:00-20:00 on 24th & 10:00-16:00 on 25th September. Zepfest will be held in the fields around Copt Hall, Little Wigborough, CO5 7RD. More information can be found here: <http://www.zepfest.net> where you can find links to the National Trust ticket sales. Interestingly, this coincides with the crash of the Airlander 10 airship on 25th August!

According to their website, the German crew all survived the forced landing and promptly set the wreckage on fire to destroy any technical details that the British might learn from it. British engineers examined the skeleton and later used the plans as a basis for the construction of airships R33 and R34.

Attractions include WW1 aircraft, vehicles and simulators, WW1 flypast, daily illustrated talks, archive film and audio shows, equipment demonstrations etc.

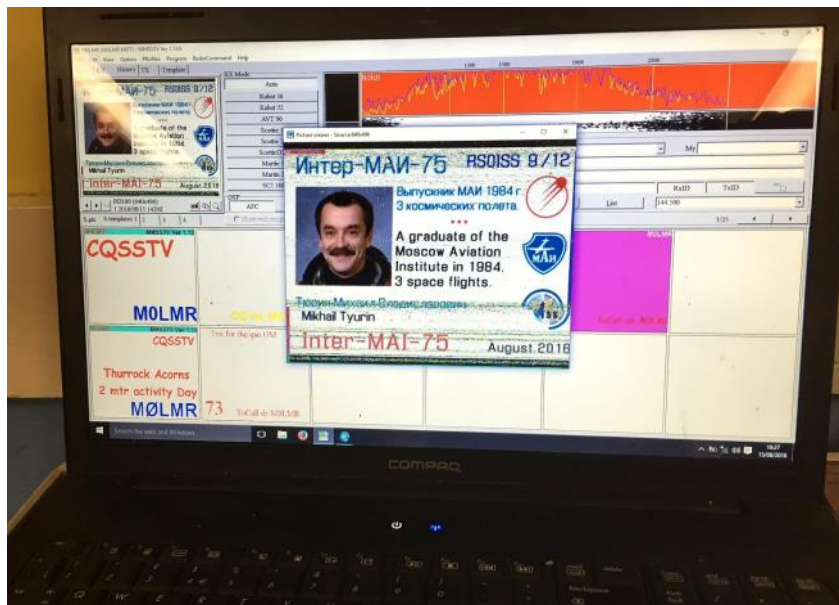
If you want to see an extremely well reasoned argument about the (non) future of airships, see this link on airships.net: <http://www.airships.net/hindenburg/size-speed#comment-103121>

Not forgetting, of course, that the original "Zepp" antenna was devised for this very type of aircraft...



August Skills night

Another interesting Skills evening took place again at Danbury. Richard, G7OED showed his ISS slow-scan reception, I offered network analyser help, Mike, G4NVT had his spectrum analyser along and, of course, the Essex CW club were there with a mix of demo and recruitment drive. Thanks to CARS and M5AKA for the pictures. - **Ed.**



Essex Ham showed their demos and getting started advice and the ever-popular tea, coffee, cakes and jam tarts. What more could you ask?



Gongs galore and well-deserved accolades

The Olympics are over and the athletes are coming home, all covered in glory, in an aircraft with the nose cone painted gold. Well-deserved wins for some and marks for effort for all those who competed at top international level - in itself, something to be proud of.

So; let's think a little closer to home than Brazil: I'm repeating the plea from last month's issue. Please consider who you would like to nominate for **Amateur of the Year** and let Chris, G0IPU have your nominations by September 13th at the latest, so the Committee can deliberate and get the award engraved. If you already have a feeling who you would like that to be, don't wait and let it get forgotten.

Contact Chris or any committee member now, or at the next meeting, or email Chris before very long at g0ipu@g0mwt.org.uk, because the accolade will be presented at the AGM on October 4th.

Without your nominations, it won't be very democratic - **Ed**.



RayTech magic gel

I came across this in a Toolstation catalogue. It looks like very useful stuff for potting external connections and cable joints. It seems pricey, but purports to have no shelf life, so it may be worth buying it if it will keep. The best aspect is that the manufacturers claim it is re-enterable after any period (I guess that means you can dislodge and remake a joint) but it's not clear how much of the gel will adhere to the cable or joint..

The specification suggests it will withstand any voltages or currents we can throw at it and it's certainly something I will bear in mind for some applications. - **Ed**.



DF Day - Sandford Mill 28th September

The society was invited to use the grounds of Sandford Mill for an event of our choice. Originally intended as an open day for the museum, but scaled down to just CARS, we decided on a try your hand at DF'ing day (direction finding). The kit in use was originally constructed way back in 2004 for a Scout Jamboree (and was in use this year too at the 2016 Essex International Jamboree).



The Technology may look a little "old hat", but it works. All the radios are on the LPD part of the radio spectrum, so the HB9CV antennas are small, thus allowing young people the chance to have a go without losing an eye as enthusiasm sets in, and it does. Setting the DF kit up was a little tricky and we could only get 3 out of the 4 working – this was due to in circuit battery failure. (It will be rectified for next time).

The event was advertised via CARS website and Twitter and on the day we got local Amateurs participating in the event. The weather was OK, with some short lived showers.

All in all a very good event, and nice to be trusted with the Sandford Mill site for a CARS event. My thanks to all who attended: Andy, G7TKK, Murray, G6JYB, Jim, 2E0RMI, Steve, G4GHO and Colin, G0TRM. Jim's XYL Ann went blackberry picking; very successfully, as well. - **Chris, G0IPU**



Essex International Jamboree - 2016

Every four years in Essex the Scouts hold an International Jamboree where over 9,000 Scouts from 32 nations descend on Essex at Boyton Cross, just outside Chelmsford on the A1060.

The Chelmsford Scout Amateur Radio Fellowship is, a group of Scout leaders with a keen interest in prompting amateur radio via the Scouting movement, usually getting involved in a week long radio station GB2EIJ, but for m2016, this was not on the menu.

As an alternative, a new venture was tried in the name of "Junior Jam" aimed at the Cub Scout and Brownies (8-10½ year olds). Entertainment on offer was radio controlled



cars (as seen at Sandford Mill), a radio station, (MX5CDS - Chelmsford District Scouts), a CW sample/try out setup, and a novel use of a 2.4GHz TV camera mounted on a hard hat (HatCam). This HatCam was a great success with the age group in a game of "go peg a friend" (using a clothes peg without them seeing you). The TV signal being relayed back was displayed on a 32" LCD TV for their friends to watch; no sound though, something to do with the 5.5MHz offset for the sound!

Despite this issue (probably for the better), they loved it, promoting a very busy shack.

Its hoped that in 2020 we will be back on the menu in the main event for the Scouts and Guides. - **Chris, G0IPU**